

On CERNOHORSKY's Designation of a Lectotype for *Murex mancinella* LINNAEUS

BY

H. E. VOKES

Department of Geology, Tulane University, New Orleans, Louisiana 70118

Member, International Commission on Zoological Nomenclature

THE WRITER WAS MUCH DISTURBED to note that Dr. W. O. Cernohorsky (1969, p. 297) had designated as lectotype of *Murex mancinella* LINNAEUS, 1758 a specimen in the Linnaean collection of the Linnean Society of London which, on the basis of all evidence is not part of the original type material and hence is not available for such designation. Under the provisions of the Code of Zoological Nomenclature [Article 74(a)(i)] CERNOHORSKY's designation is, accordingly, invalid. This, added to the fact that the problem of the identity of the type species of the genus *Mancinella* LINK, 1807, is presently being considered by the International Commission on Zoological Nomenclature, makes his action peculiarly unfortunate at this time.

It has long been known that the Linnaean collection contained three specimens identified as this species. According to SMITH (1913, p. 287) "They were mounted upon wooden tablets by Mr. Hanley when he wrote his work *Ipsa Linnaei Conchylia*, and two of them are marked in Linné's handwriting [emphasis mine] with the number 544 of the twelfth edition of the *Systema Naturae*." These two are the specimens of *Drupa cornus* RÖDING, 1798 that CERNOHORSKY states: "are excluded [apparently by him] from the type series; they were either added by Linnaeus after 1758 or were erroneously selected by Hanley as types of *Murex mancinella*." It should be noted in passing that Hanley did not select these specimens as types of the species, he simply stated that they were "marked" by Linnaeus as examples of *M. mancinella*, although it is clear from his introduction to his work (cited later in the present paper) that he considered those specimens marked with the numbers of the tenth edition as representing the Linnaean types of the species described in that edition.

It is to be noted, however, that DODGE (1957, p. 136) states that these two specimens are to be taken as syntypes of *Murex mancinella*, saying: "The systematists who follow the current practice of retaining well-known names whenever possible must, in the present case, base their opinion on the presence in the collection of a single undoc-

umented specimen of the *mancinella* of Lamarck and authors and thus retain the name *mancinella*, selecting that specimen out of the syntypic lot as the lectotype of *M. mancinella* Linné. This is not only a violation of the Rule of Priority, but is the choice of a type unsupported by any evidence whatsoever, except its possible adventitious presence in the tray, and is a disregard of specimens that Linnaeus himself documented as type. I . . . see no reason for denying to the specimens of *Drupa cornus* RÖDING their status as syntypes."

This restriction of the type lot to the two specimens "marked" by Linnaeus, if accepted, further serves to invalidate Cernohorsky's lectotype designation, and at the same time would fix the Linnaean name upon the species now known as *Drupa cornus* RÖDING, a form that is generically distinct from the species that are today referred to the genus *Mancinella* LINK, to which genus the *mancinella* of LAMARCK and authors, not of LINNAEUS, has long been referred. It was this consideration that led Dr. Keen to request the International Commission on Zoological Nomenclature to declare that the *M. mancinella* of LINNAEUS, 1758, be considered a *species dubium* and that the type be designated as the *M. mancinella* of authors. The oldest valid name for the latter appears to be "*Volema*" *alouina* RÖDING (1798, p. 58; sp. 728) based upon the figure in MARTINI & CHEMNITZ, *Conchylien Cabinet*, vol. 3, Tafel 101, figs. 967, 968. The Röding name is older than *Purpura gemmulata* of LAMARCK, 1816, based upon the same illustration, which was listed by Dr. Keen as the valid name (see Bulletin of Zoological Nomenclature, vol. 21, prt. 6, p. 422).

The third specimen in the Linnaean collection, which is completely unmarked by Linnaeus, is that which has been selected by Cernohorsky as the lectotype. There is absolutely no evidence that it was ever seen by Linnaeus, and in fact, it seems most probable that it was subsequently added during the interval between Linnaeus' death in 1778 and the time of the Linnean Society's acquisition of the collection in 1828.

It is pertinent to cite the history of the collection as given by DODGE (1959, p. 179): "At the death of Linnaeus in 1778 his natural history collections, manuscripts and library descended to his son who was himself a competent naturalist and who had accumulated a collection of his own. Based upon what we know of his abilities and his conscientious and useful annotations in his own copy of the twelfth edition of the *Systema* it is probable that the elder Linnaeus's Collections came to no harm during the time they were in his son's custody. Certainly there is no evidence that any transfers of specimens were made between the two collections. At the son's death in 1783, his mother, as his executrix, sold the elder Linnaeus's Collections and literary material to James Edward Smith of London, then a young medical student. Smith was knighted in 1814. The purchased material arrived in London in 1784, and remained in Smith's possession until his death in 1828, when it was acquired by The Linnean Society of London of which Sir James Smith was the first President at its foundation in 1788 and remained in that office until his death. All of the Linnaean material is still in the possession and custody of the Society.

"Smith was primarily a botanist and, as might be expected, was less interested in the zoological portions of the Linnaean Collections. It is admitted that during the many years he held the collections the cabinet of molluscs, at least, was mishandled through the inadvertent replacement of specimens in the wrong receptacles as well as by the integration of Smith's own specimens. Many of the equivocal situations now encountered in connection with the undocumented specimens are the result of these unfortunate accessions"

With respect to the mishandling of the collection while in the possession of Sir James Smith, HANLEY states (1855, p. 2): "Had the cabinet . . . passed direct from the hands of Linnaeus to the Museum of the Linnean Society, . . . , without any intermediate possession by a third party, the sole additions to the typical examples coeval with the date of his publications would have been those he had acquired subsequently to the appearance of the last edition of his '*Systema*;' and as these were almost invariably found packed in separate papers or pill-boxes (often indeed indicated as undescribed), and not distributed like the original types, in metallic receptacles, their presence would have caused but little impediment to any determined search. The collection, however, did not reach the Society direct, but was held for a while by the noted botanist Sir James Smith, during whose custody numerous other specimens were mingled with the ancient ones. This ill-advised admixture has not merely augmented to an almost inconceivable degree the difficulties of investigation, but has too frequently been fatal to any accurate

decision." HANLEY also adds (p. 3) "The original specimens, when large enough to permit it, had been inscribed by Linnaeus either with their names or with numerals corresponding to their position in his '*Systema*;' the smaller ones had been deposited in tin boxes, marked in like manner; oftentimes, indeed the numerals were written on both shell and boxes."

Thus all authors (HANLEY, SMITH, DODGE) who have worked carefully with the Linnaean collection agree that the original Linnean specimens were marked by Linnaeus. In the present case the only specimens thus recognized were the two examples of *Drupa cornus* RÖDING; the third specimen, unmarked, was thus either added subsequent to the publication of the twelfth edition or, more probably, by Sir James Smith as a typical example of the "*Murex*" *mancinella* of LAMARCK and other authors among his contemporaries.

It may be significant that the number on the two marked specimens in question is that of the position of the species in the twelfth edition, although the species itself was described, under the number 469, in the tenth edition. According to HANLEY (p. 3), "It is worthy of remark, that these numerals more frequently correspond to the series of the tenth than of the twelfth edition, a fair ground for believing that these shells were not merely his erroneous after-impressions of his own species, but were admitted and recognized types when the final edition was printed." DODGE (1952, p. 8) more specifically states that: "Where the number is of the tenth edition it indicates that the specimen was a recognized and accepted type when the twelfth edition was published."

The fact that the number on the specimens of *Murex mancinella* is that of the twelfth edition is grounds for the suggestion that Linnaeus did not himself possess a specimen of this species at the time of the original description in the tenth. It is known that some species which Linnaeus did not himself possess were described from specimens borrowed from the collections of Spengler, Count Tessin, De Geer, Gyllenborg, and others (DODGE, 1959, p. 173), and it may well be that the true "type specimen" of *M. mancinella* was from one of these other sources.

The original description of *Murex mancinella* in the tenth edition (1758, p. 751) is as follows: "M. testa ecaudata ovata spinis obsolete, apertura edentula, columella transversim striata."

While CERNOHORSKY correctly points out that the specimens of *Drupa cornus* do not agree with this description in that the aperture is not edentulous but is marked by "5 - 6 prominent labial denticles", he fails to note that the *M. mancinella* of LAMARCK and subsequent authors also does not agree with the description for the columella is smooth, not transversely striated, and the phrase "spinis

obsoletis" does not conform to the sharp and prominent spines seen in that shell. The first of these differences was noted by HANLEY (1855, pp. 295 - 296) and commented upon in some detail by SMITH (1913, p. 287) in the paper cited by CERNOHORSKY. SMITH stated: "The *Purpura mancinella* of authors does not agree with Linné's description in the tenth edition of the *Systema*, for the columella is not 'transversim striata', and nothing, moreover, is said as regards colour. The 'apertura edentula' is fairly descriptive, for the red thread-like lines within the mouth could hardly be termed teeth, yet one would expect such a conspicuous feature to have been referred to if Linné had the shell before him *at the time*." The latter italics are those of SMITH, who clearly did not believe that the third, unmarked specimen was a part of the original Linnaean collection. SMITH also noted, as did HANLEY, that the *Murex mancinella* of the Museum Ulricae of Linnaeus, published in 1764, is "certainly, in part, the *mancinella* auctorum, for this is shown by the 'spinae brevissimae purpurascetes', which is a characteristic feature of that species. The 'fauce lutea, transversim striata' [throat saffron-yellow, transversely striated] also seems to indicate this species" (SMITH, 1913, p. 287).

The fact that Linnaeus returned to the original tenth edition description of *Murex mancinella* in the twelfth edition of the *Systema* without any additions or alterations based upon the specimens in the Museum Ulricae which he had studied in the interim, coupled with his acceptance of the specimens of *Drupa cornus* as representing his species seems to the writer to be rather compelling evidence that his concept was of a broad and variable form that probably would include a majority of the presently known species of Thaidinae, and hence, as originally suggested by SMITH, the species should be considered as a *species dubium*, an action that has been requested of the International Commission by Miss Keen.

To summarize: The writer is of the opinion that all available evidence strongly suggests (1) that none of the specimens in the Linnaean collection can properly be taken as representing the types of the *Murex mancinella* LINNAEUS, 1758, the two "marked" specimens bearing the number of the species in the twelfth edition probably having been added to his collection subsequent to 1758, as suggested by CERNOHORSKY, and the third unmarked specimen probably having been inserted by Sir James Smith in the interval between 1784 and 1828. Hence

neither the DODGE (1957) designation of the two marked specimens as "syntypes" nor the CERNOHORSKY (1969) designation of the third, unmarked one as the "lectotype" can be considered as valid actions under the Code.

(2) Neither the *Murex mancinella* of authors nor the "marked" specimens of *Drupa cornus* fit the original description, which, on the other hand, is too inadequate to permit its restriction to any of the known species of Thaidinae and the name *Murex mancinella* of LINNAEUS, 1758, should be considered a *nomen dubium*. (3) The correct name for the *M. mancinella* of LAMARCK, 1822, and subsequent authors must be taken as *Mancinella alouina* (RÖDING, 1798).

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